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EXAMINER	
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ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/896,408	Applicant(s) MERCIER ET AL.	
	Examiner Jude J Jean-Gilles	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/23/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

JC

DETAILED ACTION

This Action is in regards to the Reply received on 16 November, 2004.

Response to Amendment

1. This action is responsive to the application filed on November 16th, 2004. Claims 1, 3, 8, 9, 12, 19 and 20 were amended. Claims 21-49 are newly added. Claims 1-49 are pending. Claims 1-49 represent a method and apparatus for an "Automated Creation of Application Paths in Storage Area Networks."

Response to Arguments

2. Applicant's arguments with respect to claims 1, 19 and 20 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new ground of rejection as explained here below, necessitated by Applicant substantial amendment (i.e., a method wherein the SAN provides connectivity between the server and a storage device in the SAN) to the claims which significantly affected the scope thereof.

The dependent claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-3, 20, 27, 31, 32, 41, and 43** are rejected under 35 U.S.C. 102(e) as being anticipated by Dobberpuhl et al (Dobberpuhl), Patent No. 6,754,718 B1.

Regarding **claim 1**, Dobberpuhl discloses *a* method of creating a data path for a process executing on a server coupled to a storage area network (SAN), the SAN providing connectivity between the server and a storage device in the SAN (*fig. 1, items 100, 110, 120, and 145*), the method comprising:

parameterizing a set of attributes for a desired data path between the process and the storage a device of the SAN (*column 3, lines 53-67*); and

constructing the data path that provides said set of attributes (*column 3, lines 36-47*).

Regarding **claim 2**, Dobberpuhl discloses the method of claim 1 wherein said set of attributes includes a pre-defined template (*column 2, lines 64-67; column 3, lines 1-5, and 53-67*).

Regarding **claim 3**, Dobberpuhl discloses the method of claim 2 wherein said set of attributes includes a data path owner, application, and the server on which the application is executing (*column 3, lines 52-67*).

Regarding **claim 20**, Dobberpuhl discloses an Apparatus for creating a data path for a process executing on a server coupled to a storage area network (SAN), the SAN providing connectivity between the server and a storage device in the SAN (*fig. 1, items 100, 110, 120, and 145*), the method comprising:

means for parameterizing a set of attributes for a desired data path between the process and a storage device of the SAN (*column 3, lines 53-67*); and

means, coupled to said parameterizing means, for constructing the data path that provides said set of attributes(*column 3, lines 36-47*).

Regarding **claim 27**, Dobberpuhl discloses the method of claim 1, constructing the data path that provides said set of attributes being performed without user or administrator intervention (*column 3, lines 52-67; column 4, lines 1-55*).

Regarding **claim 31**, Dobberpuhl discloses the method of claim 1, further comprising:

connecting the SAN to a Wide Area Network IWANI through a general purpose computer; and communicating with another processing system through the WAN using the general purpose computer (*column 3, lines 44-67*).

Regarding **claim 32**, Dobberpuhl discloses the method of claim 31, communicating with another processing system comprising communicating with a server by using a TCPA protocol (*column 3, lines 25-67*).

Regarding **claim 41**, Dobberpuhl discloses the method of claim 1, constructing the data path comprising automatically constructing a data path that provides said set of attributes (*column 3, lines 36-47*).

Regarding **claim 43**, Dobberpuhl discloses the apparatus of claim 20, the means for constructing the data path automatically constructing the data path (*column 3, lines 36-47*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 4, 5, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobberpuhl in view of Wang et al. (Wang), U.S. Patent No. 6,834,326 B1.

Regarding **claim 4**, Dobberpuhl discloses the invention substantially as claimed. Although Dobberpuhl teaches a method to parametize a set of attributes with a pre-defined template, Dobberpuhl does not explicitly disclose a pre-defined template that specifies a set of performance, availability, and cost metrics for the desired data path.

In the same field of endeavor, Wang discloses a (*...a SAN with disks arrays that support characterization information such as capacity, performance metrics, etc. For use in the auto-configuration process...*) [*see Wang, column 8, lines 30-67; column 9, lines 1-67*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Wang's teachings of a method and apparatus for a pre-defined attributes template with the teachings of Dobberpuhl, for the purpose of providing automatic configuration to reduce the total cost of the system as stated by Wang in lines 17-21 of column 2. Thus, Dobberpuhl also provides motivation to combine by stating a need to also provide to the SANs "*the ability to automatically create a topology to provide recognizable identifiers for the connected components...*" [*see Dobberpuhl, column 1, lines 35-40*]. By this rationale **claim 4** is rejected.

Regarding **claim 5**, the combination Dobberpuhl-Wang teaches the method of claim 4 wherein said set of performance and availability metrics includes at least one of a number of threads, a security level, and a default volume size and characteristics, default path characteristics. The same motivation that was utilized in the combination of claim 4, applies equally as well to claim 5 [*see Wang, column 89, lines 1-67; column 10, lines 1-67*]. By this rationale **claim 5** is rejected.

Regarding **claim 18**, the combination Dobberpuhl-Wang the method of claim 1 wherein said constructed data path includes all physical, logical and security component identification and configuration information sufficient to operably link the process to an identified data volume of the SAN [*see Wang, column 89, lines 1-67; column 10, lines 1-67*]. By this rationale **claim 18** is rejected.

7. **Claims 6-11, 15-17, 19, 21-26, 28-30, 33-40, 42, , and 44-49** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobberpuhl in view of Cheng et al. (Cheng), U.S. Patent No. 6,824,477 B1.

Regarding **claim 6**, Dobberpuhl discloses the invention substantially as claimed. Although Dobberpuhl teaches a method to parametize a set of attributes with a pre-defined template, Dobberpuhl does not explicitly disclose a method wherein said parametizing step includes a step of entering a user-defined attribute for inclusion in said set of attributes.

In the same field of endeavor, Cheng discloses a (segregated user interface to be used as a utility tool to help configure a LUN(logical unit number) masking and failover...) [*see Cheng, column 8, lines 50-65*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Cheng's teachings of a method and apparatus for a user-defined attributes template with the teachings of Dobberpuhl, for the purpose of allowing easy configuration of a failover filter driver providing easy configuration of a failover in a multi-path network computer system to increase reliability as stated by Cheng in lines 13-18 of column 3. Thus, Dobberpuhl also provides motivation to combine by stating a need to also provide to the SANs "*the ability to automatically create a topology to provide recognizable identifiers for the connected components...*" [*see Dobberpuhl, column 1, lines 35-40*]. By this rationale **claim 6** is rejected.

Regarding **claim 7**, the combination Dobberpuhl-Cheng discloses the method of claim 6 wherein said entering step includes entry of said user-defined attribute by use of a graphical user interface coupled to the SAN. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 7 [*see Dobberpuhl, fig. 3, item 370; column 5, lines 19-28*]. By this rationale **claim 7** is rejected.

Regarding **claim 8**, the combination Dobberpuhl-Cheng discloses the method of claim 1 wherein said constructing step further comprises:

searching the SAN for a set of candidate storage devices [*see Dobberpuhl, column 4, lines 8-20*];

constructing a candidate data path from the server to each candidate storage device of said set of candidate storage devices [*see Dobberpuhl, column 4, lines 8-20*];

evaluating each said candidate data path against a selection metric to rank said candidate data paths from a best candidate data path to a least best candidate data path according to said selection metric [*see Cheng, column 5, lines 2-11; column 7, lines 18-67*]; and

selecting said best candidate data path as the data path to be constructed by said constructing step. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 8 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 8** is rejected.

Regarding **claim 9**, the combination Dobberpuhl-Cheng discloses the method of claim 1 wherein said constructing step further comprises:

searching the SAN for a set of candidate storage devices [*see Dobberpuhl, column 4, lines 8-20*];

constructing a candidate data path from the server to each candidate storage device of said set of candidate storage devices [*see Dobberpuhl, column 4, lines 8-20*];

evaluating each said candidate data path against a selection metric to rank said candidate data paths from a best candidate data path to a least best candidate data path according to said selection metric [*see Cheng, column 5, lines 2-11; column 7, lines 18-67*];

presenting said ranked candidate data paths to a user for selection [*see Cheng, column 7, lines 18-41*]; and

selecting a user-selected candidate data path as the data path to be constructed by said constructing step. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 9 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 9** is rejected.

Regarding **claim 10**, the combination Dobberpuhl-Cheng discloses the method of claim 9 wherein said presenting step recommends said best candidate data path for selection by said user. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 10 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 10** is rejected.

Regarding **claim 11**, the combination Dobberpuhl-Cheng discloses the method of claim 10 wherein said best candidate data path is presented as a default selection at said selecting step. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 11 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 11** is rejected.

Regarding **claim 15**, the combination Dobberpuhl-Cheng discloses the method of claim 9 wherein said selection metric includes best SAN practices information . The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 15 [*see Dobberpuhl, column 3, lines 16-67*]. By this rationale **claim 15** is rejected.

Regarding **claim 16**, the combination Dobberpuhl-Cheng discloses the method of claim 9 wherein said selection metric includes learned state and usage information of the SAN. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 16 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 16** is rejected.

Regarding **claim 17**, the combination Dobberpuhl-Cheng discloses the method of claim 9 wherein said searching step prequalifies a subset of candidate data paths by finding those candidates that satisfy a pre-created policy prior to application of said evaluating step. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 17 [*see Cheng, column 7, lines 18-67*]. By this rationale **claim 17** is rejected.

Regarding **claim 19**, the combination Dobberpuhl-Cheng discloses a method of configuring a SAN, the SAN providing connectivity between a server and a storage device in the SAN [*see Dobberpuhl, fig. 1, items 100, 110, 120, and 145*], the method comprising:

discovering, by use of a an external data path engine coupled to the SAN, processes that are operable on a server coupled to the SAN [*see Cheng, fig. 2B, item 218; column 7, lines 42-54*];

discovering, by use of said external data path engine coupled to the SAN, storage devices that are included in the SAN [*see Cheng, fig. 2B, item 218; column 7, lines 42-54*];

responding, by use of said external data path engine coupled to the SAN, to a data path construction request from a user by providing said user with an interface to accept a set of attributes for a desired data path for one of said discovered processes [*see Cheng, column 8, lines 33-67*]; and

constructing, by use of the external data path engine coupled to the SAN, the data path that provides said set of attributes. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 19 [*see Cheng, column 8, lines 33-67*]. By this rationale **claim 19** is rejected.

Regarding **claim 21**, the combination Dobberpuhl-Cheng discloses the method of claim 1, constructing the data path comprising automatically constructing a datapath having one or more channels or threads. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 21 [*see Cheng, fig. 3, items 314-318; column 7, lines 42-67; column 8, lines 1-19*]. By this rationale **claim 21** is rejected.

Regarding **claim 22**, the combination Dobberpuhl-Cheng discloses the method of claim 2 1, the one or more channels or threads being one or more fibre channel connections. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 22 [*see Cheng, column 9, lines 12-23*]. By this rationale **claim 22** is rejected.

Regarding **claim 23**, the combination Dobberpuhl-Cheng discloses the method of claim 19, constructing the data path comprising automatically constructing a datapath having one or more channels or threads. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 23 [*see Cheng, fig. 3, items 314-318; column 7, lines 42-67; column 8, lines 1-19*]. By this rationale **claim 23** is rejected.

Regarding **claim 24**, the combination Dobberpuhl-Cheng discloses the method of claim 23, the one or more channels or threads being one or more fibre channel connections. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 24 [*see Cheng, column 9, lines 12-23*]. By this rationale **claim 24** is rejected.

Regarding **claim 25**, the combination Dobberpuhl- Cheng discloses the apparatus of claim 20, the data path being constructed automatically and having one or more channels or threads. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 25 [*see Cheng, fig. 3, items 314-318; column 7, lines 42-67; column 8, lines 1-19*]. By this rationale **claim 25** is rejected.

Regarding **claim 26**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 25, the one or more channels or threads being one or more fibre channel connections. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 26 [*see Cheng, column 9, lines 12-23*]. By this rationale **claim 26** is rejected.

Regarding **claim 28**, the combination Dobberpuhl- Cheng discloses the method of claim 19, constructing the data path that provides said set of attributes being performed without user or administrator intervention. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 28 [see *Dobberpuhl, column 3, lines 52-67; column 4, lines 1-55*]. By this rationale **claim 28** is rejected.

Regarding **claim 29**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 20, the data path being constructed without user or administrator intervention. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 29 [*see Cheng, fig. 3, items 314-318; column 7, lines 42-67; column 8, lines 1-19*]. By this rationale **claim 29** is rejected.

Regarding **claim 30**, the combination Dobberpuhl- Cheng discloses the method of claim 19, discovering storage devices that are included in the SAN being performed automatically. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 30 [*see Cheng, fig. 3, items 314-318; column 7, lines 42-67; column 8, lines 1-19*]. By this rationale **claim 30** is rejected.

Regarding **claim 33**, the combination Dobberpuhl-Cheng discloses the method of claim 19, the external data path engine being operated as PM Of a general purpose Computer. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 33 [*see Cheng, fig. 2B, items 200b, 218; column 5, lines 12-23*]. By this rationale **claim 33** is rejected.

Regarding **claim 34**, the combination Dobberpuhl-Cheng discloses the method of claim 33, the external data path engine being coupled to a switching network of the SAN. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 34 [*see Dobberpuhl, fig. 3, column 3, lines 44-67*]. By this rationale **claim 34** is rejected.

Regarding **claim 35**, the combination Dobberpuhl-Cheng discloses the method of claim 33,'the general purpose computer being connected to a Wide Area Network (WAN) . The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 35 [see D*obberpuhl, column 3, lines 44-67*]. By this rationale **claim 35** is rejected.

Regarding **claim 36**, the combination Dobberpuhl-Cheng discloses the method of claim 35, the general purpose computer being connectable to a plurality of other devices, networks or locations through the WAN. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 36 [see D*obberpuhl, column 3, lines 44-67*]. By this rationale **claim 36** is rejected.

Regarding **claim 37**, the combination Dobberpuhl-Cheng discloses the method of claim 35, further comprising communicating with another processing system through the WAN using the general purpose computer. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 37 [see D*obberpuhl, column 3, lines 44-67*]. By this rationale **claim 37** is rejected.

Regarding **claim 38**, the combination Dobberpuhl-Cheng discloses the method of claim 37, communicating with another processing system comprising communicating with a server using a TCP/IP protocol.. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 38 [see D*obberpuhl, column 3, lines 25-67*]. By this rationale **claim 38** is rejected.

Regarding **claim 39**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 20, further comprising:

a general purpose computer, the means for constructing the data path being operated as part of the general purpose computer; and

a Wide Area Network (WAN), the general purpose computer being connected to the WAN, the general purpose computer communicating with another processing system through the WAN. The same motivation that was utilized in the combination of

claim 6, applies equally as well to claim 39 [*see Cheng, fig. 2B, items 200b, 218; column 5, lines 12-23*], and [see D*obberpuhl, column 3, lines 44-67*]. By this rationale **claim 39** is rejected.

Regarding **claim 40**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 39, the general purpose computer communicating with a server using a TCPA protocol. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 40 [see D*obberpuhl, column 3, lines 44-67*]. By this rationale **claim 40** is rejected.

Regarding **claim 42**, the combination Dobberpuhl- Cheng the method of claim 19, constructing the data path comprising automatically constructing a data path that provides said set of attributes. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 42 [see D*obberpuhl, column 3, lines 36-47*]. By this rationale **claim 42** is rejected.

Regarding **claim 44**, the combination Dobberpuhl-Cheng discloses the method of claim 1, constructing the data path comprising constructing a data path across multiple networks. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 44 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 44** is rejected.

Regarding **claim 45**, the combination Dobberpuhl-Cheng discloses the method of claim 19, constructing the data path comprising constructing a data path across multiple networks. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 45 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 45** is rejected.

Regarding **claim 46**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 20, the means for constructing the data path constructing the data path across multiple networks. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 46 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 46** is rejected.

Regarding **claim 47**, the combination Dobberpuhl-Cheng discloses the method of claim 1, constructing the data path comprising constructing a data path across multiple locations. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 47 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 47** is rejected.

Regarding **claim 48**, the combination Dobberpuhl-Cheng discloses the method of claim 19, constructing the data path comprising constructing a data path across multiple locations. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 48 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 48** is rejected.

Regarding **claim 49**, the combination Dobberpuhl-Cheng discloses the apparatus of claim 20, the means for constructing the data path constructing the data path across multiple locations. The same motivation that was utilized in the combination of claim 6, applies equally as well to claim 49 [see Cheng, *column 6, lines 35-44*]. By this rationale **claim 49** is rejected.

8. **Claims 12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobberpuhl and Cheng as applied to claim 9 above, and in further view of Wang.

Regarding **claim 12,** the combination Dobberpuhl-Cheng discloses the invention substantially as claimed. Although Dobberpuhl-Cheng teaches a method to parametize a set of attributes to allow the SAN to use a candidate storage device, Dobberpuhl-Cheng does not explicitly disclose a method wherein said selection metric includes storage device uptime information.

In the same field of endeavor, Wang discloses a (*...a SAN with disks arrays that support characterization information such as capacity, performance metrics, etc. For use in the auto-configuration process...*) [*see Wang, column 8, lines 30-67; column 9, lines 1-67*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Wang's teachings of a method and apparatus for a pre-defined attributes template with the teachings of Dobberpuhl-Cheng, for the purpose of providing automatic configuration to reduce the total cost of the system as stated by Wang in lines 17-21 of column 2. Thus,

Dobberpuhl also provides motivation to combine by stating a need to also provide to the SANs "*the ability to automatically create a topology to provide recognizable identifiers for the connected components...*" [*see Dobberpuhl, column 1, lines 35-40*]. By this rationale **claim 12** is rejected.

Regarding **claim 13**, the combination Dobberpuhl-Wang-Cheng discloses the method of claim 9 wherein said selection metric includes performance information. The same motivation that was utilized in the combination of claim 4, applies equally as well to claim 13 [*see Wang, column 8, lines 30-67; column 9, lines 1-67*]. By this rationale **claim 13** is rejected.

Regarding **claim 14**, the combination Dobberpuhl-Wang-Cheng discloses the method of claim 9 wherein said selection metric includes cost calculation. The same motivation that was utilized in the combination of claim 4, applies equally as well to claim 13 [*see Wang, column 11, lines 50-67; column 12, lines 1-30*]. By this rationale **claim 14** is rejected.

Respons to Arguments

9. Applicant's Request for Reconsideration filed on November 16th, 2004 has been carefully considered but is not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention.

A. The Lee patent fails to disclose or suggest, and is not all related to, SAN architecture with respect to independent **claims 1, 19, and 20.**

B. Applicant contends that Claims 1, 8, 9, 12, 19, and 20 have been amended to further define a SAN architecture and associated storage devices in a non-limiting manner.

10. As to "Point A" it is the position of the Examiner that Lee in detail teaches the limitations of the above mentioned claims. However, in view of Applicant's remarks, stating that Lee teaches a NAS instead of a SAN, Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained above [*see Dobberpuhl, column 2, lines 45-67*].

11. As to "Point B", it is also the Examiner's position that at Col. 3, lines 16-67, that Dobberpuhl teaches a server coupled to a storage area network (SAN), "*the SAN providing connectivity between the server and a storage device in the SAN*".

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jude Jean-Gilles
Patent Examiner
Art Unit 2143

William C. Vaughn
Primary Examiner
Art Unit 2143
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